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22. A stethoscope according to claim 1, wherein said digital filter has filter coefficients equivalent to resonance peaks of the transfer function of said at least one acoustic stethoscope.--

REMARKS

The above actions merely present a couple of additional claims designed to round-out the coverage of the present invention and to focus on the distinctions that exist between the present invention and the prior art. However, none of the original claims have been amended and reconsideration of this application is now sought for the following reasons.

Firstly, the Examiner's indication of allowable subject matter with respect to claims 9, 10 and 13-20 has been noted with appreciation. However, since parent claim 1 is believed to be equally patentable over the cited prior art for the reasons indicated below, no action is being taken at this time to place these claims in allowable independent form.

With regard to the obviousness type double-patenting rejection, enclosed herewith is a Terminal Disclaimer. In view of this Terminal Disclaimer, this rejection should now be withdrawn.

Claims 1, 2 and 6 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combined teachings of the Thomasson and Harley patents for the reasons indicated in item 4, pages 3 & 4 of the Examiner's Action. However, it is submitted that, while it might be obvious to combine the teachings of these two patents, such would not result in the invention as claimed by the present applicants for the following reasons.

Firstly, Thomasson, as noted by the Examiner, discloses an electronic stethoscope which uses filtering to remove extraneous, and particularly higher frequencies from sounds picked up by the vibration transducer (microphone). However, this use of filters, as well as the disclosed use for controlling bandwidth, have nothing to do with the present invention, even if the filters used are digital filters. Figs. 6-14 of Thomasson show the effect of his filtering on the response characteristics of his stethoscope and it is clearly nothing more than a conventional use of bandwidth filtering. Nothing about these characteristics nor anything else disclosed by Thomasson indicates that his stethoscope is in any way capable of

producing a sound that will be perceived by the user as corresponding to that of an acoustic stethoscope, no does he even suggest how such might be accomplished. In contrast, as disclosed, e.g., relative to Figs. 3 & 4, the present invention does not merely filter out noise and control bandwidth, but rather the present invention uses a digital filter with an impulse transfer function "corresponding to at least one acoustic stethoscope type" which "means that temporal relationships are now reproduced as if they were transmitted through said acoustic stethoscope" (first full paragraph, page 4), so that the electronic stethoscope of the present invention will sound like what the doctor is used to hearing with his acoustic stethoscope and the physician will not have to learn a completely new set of sounds (see description of the problems of the prior art on pages 2 & 3 of the present application).

As for the patent to Harley, and the active noise control stethoscope therein, it is pointed out that Harley merely discloses the use of digital filters for noise reduction purposes, and while it would be obvious to use a digital filter for that purpose in the stethoscope of Thomasson, again, such is not the present invention. The fact that Harley uses a finite impulse response (FIR) digital filter does not change the disclosed fact that Harley teaches that the impulse response of the digital filter is calibrated to cancel noise, and is not used to reproduce the acoustic sound response of any particular type of acoustic stethoscope; this difference between the present invention and the teachings of Harley are even more clearly brought out by claim 6 which defines that the transfer function has been obtained by measurement on a specific stethoscope.

In summary, neither Thomasson nor Harley teach or suggest an electronic stethoscope capable of mimicking the performance of an acoustic stethoscope, and no combination thereof would lead one of ordinary skill in the art to use a digital filter with a transfer function that corresponds to that of an acoustic stethoscope based on the bandwidth and noise reduction filtering teachings of these patents. Therefore, reconsideration and withdrawal of the outstanding rejection based on the Thomasson and Harley patents is in order and is now requested.

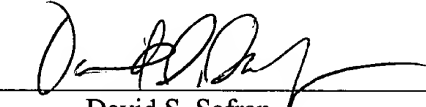
The prior art which has been cited but not applied by the Examiner has been taken into consideration during formulation of this response. However, since this art is not any more relevant than that relied upon by the Examiner and was not considered by him to be of

sufficient relevance to applied against the original claims, no detailed discussion thereof is believed warranted at this time.

While the present application is now believed to be in condition for allowance, should the Examiner find some issue to remain unresolved, or should any new issues arise, which could be eliminated through discussions with applicant's representative, then the Examiner is invited to contact the undersigned by telephone in order that the further prosecution of this application can thereby be expedited.

Lastly, it is noted that a separate Extension of Time Petition accompanies this response along with a check in payment of the requisite extension of time fee. However, should that petition become separated from this Amendment, then this Amendment should be construed as containing such a petition. Likewise, any overage or shortage in the required payment should be applied to Deposit Account No. 19-2380 (742114-5).

Respectfully submitted,


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